

ABSTRACT

The invention relates to a process and equipment for the treatment of stillage generated by the tequila industry during distillation and mashing, which are intended to eliminate any contaminants contained in the stillage for the purpose of water recovery by means of water vapour. The invention also relates to a novel heat exchanger and stillage evaporator which are used during the process in order to ensure that the vapour generated thereby comprises 100 % water vapour. In this way, the vapour can be re-used in the process line, thereby saving water and eliminating residual discharges to canals or rivers. The solids recovered from the process can be used to produce sub-products having a high concentration of fibre, sugar, protein, as a mixture for livestock feed or biofertilizers, or to produce ethyl alcohol. The inventive process does not require skilled labour and can be performed by general production personnel. In addition, the process requires a surface area of no more than 180m² and, as such, complies with Official Mexican Standard NOM-001-ECOL-1996.